

JC614 U.S. PTO
11/12/98

PTO/SB/05 (12/97)

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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

| | | | |
|--|------------|---------------|----------------------------|
| Attorney Docket No | 97-019 DIV | Total Pages | 30 |
| First Named Inventor or Application Identifier | | | |
| CHRISTOPHER N. MACROGOLU | | | JC542 U.S. PTO 11/12/98 |
| Express Mail Label No. | | EL033815935US | |

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents

1. Fee Transmittal Form
(Submit an original, and a duplicate for fee processing)
2. Specification [Total Pages **16**]
 - Descriptive title of the Invention
 - Cross References to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to Microfiche Appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
3. Drawing(s) (35 USC 113) [Total Sheets **7**]
4. Oath or Declaration [Total Pages **6**]
 - a. Newly executed (original or copy)
 - b. Copy from a prior application (37 CFR 1.63(d))
(for continuation/divisional with Box 17 completed)
[Note Box 5 below]
 - i. **DELETION OF INVENTOR(S)**
Signed statement attached deleting
inventor(s) named in the prior application,
see 37 CFR 1.63(d)(2) and 1.33(b).
5. Incorporation By Reference (useable if Box 4b is checked)
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

JC542 U.S. PTO
11/12/98
ADDRESS TO: Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

6. Microfiche Computer Program (Appendix)
7. Nucleotide and/or Amino Acid Sequence Submission
(if applicable, all necessary)
 - a. Computer Readable Copy
 - b. Paper Copy (identical to computer copy)
 - c. Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

8. Assignment Papers (cover sheet & document(s))
9. 37 CFR 3.73(b) Statement Power of Attorney
(when there is an assignee)
10. English Translation Document (if applicable)
11. Information Disclosure Statement (IDS)/PTO-1449 Copies of IDS Citations
12. Preliminary Amendment
13. Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
14. Small Entity Statement filed in prior application,
Statement(s) Status still proper and desired
15. Certified Copy of Priority Document(s)
(if foreign priority is claimed)
16. Other:
.....
.....

17. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information:

Continuation Divisional Continuation-in-part (CIP) of prior application No: **08 / 936,587**

18. CORRESPONDENCE ADDRESS

Customer Number or Bar Code Label or Correspondence address below
(Insert Customer No. or Attach bar code label here)

| | | | | | |
|-------------------------|-------------------------------------|-----------|----------------|----------|--------------------|
| NAME | <i>Henry E. Bartony, Jr.</i> 34,772 | | | | |
| Date: November 12, 1998 | | | | | |
| ADDRESS | Bartony Hare & Edson, Suite 1801 | | | | |
| | 429 Fourth Avenue | | | | |
| CITY | Pittsburgh | STATE | Pennsylvania | ZIP CODE | 15219 |
| COUNTRY | USA | TELEPHONE | (412) 338-8632 | | FAX (412) 338-6611 |

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FEE TRANSMITTAL

Note: Effective October 1, 1997.
Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$ 395.00)

Complete if Known

| | |
|------------------------|--------------------------|
| Application Number | TO BE ASSIGNED |
| Filing Date | NOVEMBER 12, 1998 |
| First Named Inventor | CHRISTOPHER N. MACROGLOU |
| Group Art Unit | TO BE ASSIGNED |
| Examiner Name | TO BE ASSIGNED |
| Attorney Docket Number | 97-019 DIV |

METHOD OF PAYMENT (check one)

1. The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:

Deposit Account Number
Deposit Account Name
02-1065
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- Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17 Charge the Issue Fee Set in 37 CFR 1.18 at the Mailing of the Notice of Allowance

2. Payment Enclosed:

Check Money Order Other

FEE CALCULATION**1. FILING FEE**

| Large Entity Fee Code (\$) | Small Entity Fee Code (\$) | Fee Description | Fee Paid |
|----------------------------|----------------------------|------------------------|---------------|
| 101 790 | 201 395 | Utility filing fee | 395.00 |
| 106 330 | 206 165 | Design filing fee | |
| 107 540 | 207 270 | Plant filing fee | |
| 108 790 | 208 395 | Reissue filing fee | |
| 114 150 | 214 75 | Provisional filing fee | |
| SUBTOTAL (1) | | (\$) | 395.00 |

2. CLAIMS

| Total Claims | Extra | Fee from below | Fee Paid |
|---------------------------|---------|----------------|----------|
| 2 | -20 = | 0 X 11 = | 0 |
| 1 | - 3 = | 0 X 41 = | 0 |
| Multiple Dependent Claims | 0 X 0 = | | 0 |

Large Entity Fee Code (\$)

| Large Entity Fee Code (\$) | Small Entity Fee Code (\$) | Fee Description |
|----------------------------|----------------------------|---|
| 103 22 | 203 11 | Claims in excess of 20 |
| 102 82 | 202 41 | Independent claims in excess of 3 |
| 104 270 | 204 135 | Multiple dependent claim |
| 109 82 | 209 41 | Reissue independent claims over original patent |
| 110 22 | 210 11 | Reissue claims in excess of 20 and over original patent |
| SUBTOTAL (2) | | (\$) |
| | | 0.00 |

3. ADDITIONAL FEES

| Large Entity Fee Code (\$) | Small Entity Fee Code (\$) | Fee Description | Fee Paid |
|----------------------------------|----------------------------|--|-------------|
| 105 130 | 205 65 | Surcharge - late filing fee or oath | |
| 127 50 | 227 25 | Surcharge - late provisional filing fee or cover sheet | |
| 139 130 | 139 130 | Non-English specification | |
| 147 2,520 | 147 2,520 | For filing a request for reexamination | |
| 112 920* | 112 920* | Requesting publication of SIR prior to Examiner action | |
| 113 1,840* | 113 1,840* | Requesting publication of SIR after Examiner action | |
| 115 110 | 215 55 | Extension for reply within first month | |
| 116 400 | 216 200 | Extension for reply within second month | |
| 117 950 | 217 475 | Extension for reply within third month | |
| 118 1,510 | 218 755 | Extension for reply within fourth month | |
| 128 2,060 | 228 1,030 | Extension for reply within fifth month | |
| 119 310 | 219 155 | Notice of Appeal | |
| 120 310 | 220 155 | Filing a brief in support of an appeal | |
| 121 270 | 221 135 | Request for oral hearing | |
| 138 1,510 | 138 1,510 | Petition to institute a public use proceeding | |
| 140 110 | 240 55 | Petition to revive - unavoidable | |
| 141 1,320 | 241 660 | Petition to revive - unintentional | |
| 142 1,320 | 242 660 | Utility issue fee (or reissue) | |
| 143 450 | 243 225 | Design issue fee | |
| 144 670 | 244 335 | Plant issue fee | |
| 122 130 | 122 130 | Petitions to the Commissioner | |
| 123 50 | 123 50 | Petitions related to provisional applications | |
| 126 240 | 126 240 | Submission of Information Disclosure Stmt | |
| 581 40 | 581 40 | Recording each patent assignment per property (times number of properties) | |
| 146 790 | 246 395 | Filing a submission after final rejection (37 CFR 1.129(a)) | |
| 149 790 | 249 395 | For each additional invention to be examined (37 CFR 1.129(b)) | |
| Other fee (specify) _____ | | | |
| Other fee (specify) _____ | | | |
| Reduced by Basic Filing Fee Paid | | SUBTOTAL (3) | (\$) |
| | | | |

SUBMITTED BY

Typed or Printed Name

Henry E. Bartony, Jr.

Complete (if applicable)

Reg. Number 34,772

Signature

Date NOV 12, 1998

Deposit Account

User ID

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J6405: PTO

CERTIFICATION OF EXPRESS MAILING

I hereby certify that the attached Utility Patent Application Transmittal and the documents referred to as enclosed therein are being deposited with the United States Postal Service on this date November 12, 1998, in an envelope as "Express Mail Post Office to Addressee" Mailing Label Number EL033815935US, addressed to the: Assistant Commissioner for Patents, Box PATENT APPLICATION, Washington, D.C. 20231.

Henry E. Bartony, Jr.

TYPE OR PRINT NAME OF PERSON MAILING PAPER

SIGNATURE OF PERSON MATTING PAPER

U.S. Patent Application Serial No.: TO BE ASSIGNED
Entitled: **ALIGNMENT DEVICE AND METHOD FOR ALIGNING**
Attorney Docket No.: 97-019 DIV

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
CHRISTOPHER M. MACROGLOU)
Serial No. TO BE ASSIGNED)
Filed: November 12, 1998)
Art Unit: TO BE ASSIGNED)
Examiner: TO BE ASSIGNED)
Atty Docket: 97-019 DIV)

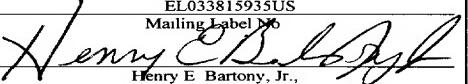
**ALIGNMENT DEVICE AND
METHOD FOR ALIGNING**

Pittsburgh, Pennsylvania 15219

November, 1998

Assistant Commissioner of Patents
Washington, DC 20231

Sir:

| | |
|---|-------|
| CERTIFICATION OF EXPRESS MAILING | |
| I hereby certify that this correspondence and any document referred to as enclosed herewith are being deposited with the United States Postal Service in an envelope as United States Express Mail addressed to the Assistant Commissioner for Patents Washington, DC 20231 | |
| EL033815935US Mailing Label #6 | |
|  Henry E. Bartony, Jr., Registration No 34, 772 | |
| November 12, 1998 | Dated |

PRELIMINARY AMENDMENT

Applicant respectfully requests that the Examiner enter the following amendments in the above-identified application. The amendments find full support in the claims and/or specification as originally filed.

IN THE ABSTRACT:

Please delete the current Abstract and insert therefor:

The present invention provides a device and method for assisting a person in achieving proper alignment. The device and method are particularly useful for achieving proper alignment for a golf stroke in which a golf ball is struck to move towards a target. In one embodiment, the device comprises a support member to be worn by the person. A light source is attached to the support member. The light source is adapted to generate a generally linear, visible alignment beam of light on the ground in front of the person when the person is in position to perform a task. The alignment beam is generally parallel to an alignment of the portion of the person's body upon which the support member is worn and, thus, provides an indication of such alignment readily visible to the user in real time.

IN THE SPECIFICATION:

On page 7, lines 5 and 12, please delete "75" and insert therefor - 70 --.

On page 7, line please delete "75" and insert therefor - 70 --.

On page 7, lines 2, 5, 6, and 13 "25" has been provided on the drawings.

On page 17, lines 11 and 12, please delete "an alignment of the golfer's."

IN THE CLAIMS:

Please cancel Claims 3 through 12.

Please amend Claims 1 and 2 as follows:

1. (Once Amended) A device for assisting a person in achieving proper alignment of a [portion] portion of the person's body when the person is in position to perform a task, comprising:

a support member to be worn by the person upon the portion of the person's body, the support member comprising a belt to be worn around the portion of the person's body;

a light source attached to the support member, the light source generating a generally linear, [visible] alignment beam of light [on the ground in front of the person that is generally parallel to] on a surface visible to the person to provide to the person an indication of an alignment of the portion of the person's body when the person is in position to perform the task.

2. (Once Amended) The device of Claim 1 wherein the light source includes a laser and a generally cylindrical lens positioned transversely to a light beam emanating from the laser, the lens creating a planar beam of

light which forms the [visible] generally linear, alignment beam [on the ground].

REMARKS

Claims 1 and 2 remain before the Examiner for reconsideration.

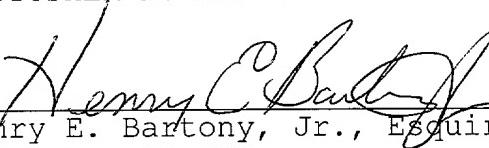
The present application is a Divisional Application of U.S. Patent Application Serial No. 08/936,587 drawn to the species of Group B, Figure 5 (Claim 4). Claim 1 has been amended to incorporate the limitations of Claim 4. The Abstract, Specification, and Drawings have been amended as in U.S. Patent Application Serial No. 08/936,587.

08/936,587-4-1296

In view of the above amendments and remarks, the Applicant respectfully requests that the Examiner indicate the allowability of Claims 1 and 2 and arrange for an official Notice of Allowance to be issued in due course.

Respectfully submitted,

CHRISTOPHER M. MACROGLOU

By 
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Attorney for Applicant

Attorney's Docket No. 97-019

PATENT

Applicant or Patentee: Christopher N. Macrogloiu

Application or Patent No.: TO BE ASSIGNED

Filed or Issued:

For: ALIGNMENT DEVICE AND METHOD FOR ALIGNING

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS (37 CFR 1.9(f)
and 1.27(b)) -INDEPENDENT INVENTOR

As a below named inventor, I hereby declare that I qualify as an independent inventor, as defined in 37 CFR 1.9(c), for purposes of paying reduced fees under Sections 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office, with regard to the invention entitled ALIGNMENT DEVICE AND METHOD FOR ALIGNING

described in

the specification filed herewith.

application no. / _____, filed _____.

patent no. _____, issued _____.

I have not assigned, granted, conveyed or licensed, and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor under 37 CFR 1.9(c), if that person had made the invention, or to any concern that would not qualify as a small business concern under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

no such person, concern, or organization.

persons, concerns or organizations listed below*

*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

FULL NAME _____

ADDRESS _____

INDIVIDUAL SMALL BUSINESS CONCERN NONPROFIT ORGANIZATION

FULL NAME _____

ADDRESS _____

INDIVIDUAL SMALL BUSINESS CONCERN NONPROFIT ORGANIZATION

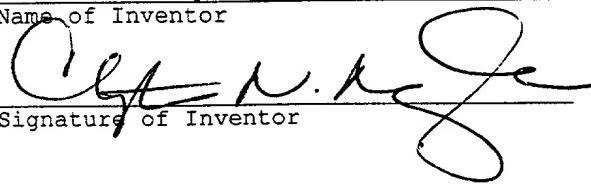
FULL NAME _____

ADDRESS _____

INDIVIDUAL SMALL BUSINESS CONCERN NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Christopher N. Macrogloou
Name of Inventor

Signature of Inventor
Date 9-23-97

TITLE

ALIGNMENT DEVICE AND METHOD FOR ALIGNING

Field of the Invention

The present invention relates to a device for
5 improving alignment, and particularly to a device for
assisting a person in determining proper alignment with a
target using a projected planar beam of light.

Background of the Invention

It is widely believed that proper initial body
10 alignment and initial club face alignment are essential to a
consistent and effective golf stroke. Proper alignment is
thought to be critical in both the full swing and putting.

For example, a number of studies have indicated
that improper initial alignment results in subconscious
15 compensation during the full swing and the putting stroke.
For example, golfers that consistently align to the right of
the target have been found to compensate for such alignment
by developing a "pull" putting stroke that starts the ball
rolling to the left of their actual alignment. Thus, poor
20 alignment generally results in poor stroke mechanics. See
Pelz, D., "The First Fundamental of Putting," GOLF Magazine,
146 (June 1995).

In developing proper alignment in a putting stroke, it is generally believed that the eyes of the golfer should be aligned generally parallel to the target line and either be inside of or directly over the target line.

5 During the full swing, it is believed that the golfer's body and eyes should be aligned generally parallel to the target line.

It is also widely accepted that it is nearly impossible to recognize and develop proper alignment simply by practicing on the course or range. A number of devices have thus been developed to provide feedback to the golfer to allow the golfer to recognize proper alignment. For example, laser alignment putting aids are available. Such device, however, are relatively expensive. Less expensive, 15 "alignment tracks" are also available but are often cumbersome to use and transport.

It is, therefore, very desirable to develop a device for assisting a person, and particularly a golfer, to determine proper alignment that is inexpensive and easy to 20 use.

Summary of the Invention

The present invention provides a device for assisting a person in achieving proper alignment. In general, the device comprises:

25 a support member to be worn by (that is to attach to) the person;

a light source attached to the support member, the light source generating a visible alignment beam of light on the ground in front of the person that is generally parallel to an alignment of a portion 5 of the person's body upon which the support member is worn.

Preferably, the light source includes a laser and a generally cylindrical lens positioned transversely to the light beam emanating from the laser. The lens creates a 10 planar beam of light which forms the visible alignment beam on the ground. Light sources other than lasers are possible as long as the planar light beam is visible to the user. A planar beam of light can also be generated by orienting a beam of light onto a convex mirrored surface. The light 15 source can be attached to the support member remotely, for example, via a fiber optic cable.

In a preferred embodiment, the present invention provides a device for assisting a golfer in achieving proper alignment for a golf stroke in which a ball is struck to 20 move towards a target, comprising:

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INC.
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a support member to be worn by the golfer;

a light source attached to the support member, the light source generating a visible alignment beam of light on the ground in front of the golfer that is generally parallel to an alignment of 25

the golfer's body when the support member is worn by the golfer;

an alignment member attached to the support member, the alignment member comprising a planar mirrored surface thereon, the position of the alignment member being adjustable to enable positioning of the mirrored surface such that a reflection of the target may be viewed by the eye of the golfer closest to the target.

In this embodiment, the support member preferably comprises eye glass frames. The alignment member is preferably adjustably attached to the frame member to enable positioning of the mirrored surface such that a reflection of the ball and the target may be viewed simultaneously by the eye of the golfer closest to the target.

The present invention also provides a method of determining alignment of a portion of a body. The method comprises the steps of:

attaching a support member to the portion of the body, the support member having attached thereto a light source, the light source adapted to generate a visible alignment beam of light on the ground that is generally parallel to the alignment of the portion of the body;

generating the visible alignment beam of light on the ground.

Brief Description of the Drawings

Figure 1 illustrates a front view of an embodiment
5 of a device of the present invention.

Figure 2 illustrates a top plan view of the embodiment of Figure 1.

Figure 3 illustrates the device of Figure 1 in use by a golfer.

10 Figure 4A illustrates a view out of the eye nearest the target of a golfer using the present device.

Figure 4B illustrates a view out of the eye farthest from the target of a golfer using the present device.

15 Figure 4C illustrates the compound or composite view of a golfer using the present device.

Figure 5 illustrates another embodiment of a device under the present invention.

Detailed Description of the Invention

Referring generally to Figures 1 through 4C, one embodiment of a device 10 of the present invention preferably comprises a support member 20 and an alignment member 30 attached to frame member 20. Preferably, frame member 20 comprises eye glass frames as well known in the eye glass arts. Alternatively alignment member 30 can be attachable to the eye glasses of the user via "clip-on" mechanisms as well known in the eye glass arts. Alignment member 30 comprises a planar member 40, having a mirrored surface 50 thereon. Alignment member 30 is preferably adjustably attached to frame member 20 via adjustment member 60 at the bridge of frame member 20. A similar support member and alignment member are disclosed in United States Patent No. 5,560,607, the disclosure of which is incorporated herein by reference.

Device 10 further comprises a light source attached to support member 20. The light source generates a visible alignment line of light A on the ground in front of the golfer that is generally parallel to an alignment of the golfer's eyes when support member 20 is worn by the golfer during putting. In a preferred embodiment, the light source comprises a laser 70 and a generally cylindrical lens 75 positioned transversely to the light beam emanating from laser 70. As known in the optics arts, lens 75 creates a planar beam or fan of light which emanates perpendicular to the axial alignment of lens 75. This planar fan of light forms visible alignment line A on the ground parallel to the orientation of the golfer's eyes.

Preferably, laser 70 is attached to a stem member 25 of glass frame support member 20 such that laser 70 and the laser beam emanating therefrom are generally parallel to the longitudinal orientation of stem member 25. With laser 75 oriented generally parallel to stem member 25, alignment line A will generally appear at a distance in front of the golfer where the golfer's eyes are focused. The orientation of laser 25 can be made adjustable with respect to the orientation of support member 20 to account for individual differences between golfers, however, using adjustment mechanisms known in the art. For example, laser 75 can be rotatable about a point C with respect to stem member 25. The position and orientation of alignment beam A can thereby be adjusted or calibrated for an individual golfer.

To prevent injury to the golfer's eyes, device 10 preferably further comprises a shield 80 that prevent light emanating from lens 75 from directly contacting the golfer's eyes. Alternatively or additionally, support member 20 may include protective eye glass lens to shield the golfer's eyes as known in the laser and optics arts.

During use, a golfer wears device 10 as one would wear standard eye glasses. While the golfer is in his or her putting stance, alignment member 30 is rotated downward so that a golfer can see the target (for example, the golf hole) reflected in mirrored surface 50 out of the eye on the side towards which alignment member 30 is rotated (that is, the eye closest to the target or hole). The vision of the other eye (that is, the eye furthest from the target or hole) is not obstructed by alignment member 30. The user thus has direct, unobstructed vision of the putter head and

ball via the eye furthest from the hole (that is, the right eye for a right-handed golfer and the left eye of a left-handed golfer).

Mirrored surface 50 is maintained via adjustment member 60 (for example, a ball joint or hinge) at an appropriate angle θ with respect to vertical (see Figure 2) such that the reflection of target 100 is seen in the field of vision of the eye nearest the hole. The reflection of target 100 is aligned such that it appears to the golfer to be directly behind ball 150 and putter 200 to place the golfer's eyes parallel to target line T between target 100 and ball 150. As illustrated in Figures 3, 4A and 4C, target line T and alignment line A are preferably colinear, at least in the case where the present invention is used while putting.

Device 10 may also comprises means for indicating alignment of the eyes substantially directly over ball 150. For example, a marker 55 may be positioned such that by placing the center of marker 55 directly in the line of sight with ball 150, target 100 and putter 200 the golfer will be assured that the golfer's eyes will be part of target plane P.

Because of differing head shapes, the center of marker 55 is preferably laterally adjustable (that is, in the direction of perpendicular to the target line) with respect to the center of alignment member 30 to facilitate achievement of such alignment. The adjustability may be accomplished, for example, via a linear drive screw mechanism (not shown). Alignment member 30 may also be adjustably attached to frame member 20 to allow rotation in

a plane generally perpendicular to the target line to facilitate the desired orientation of alignment member 30 without strained flexing and/or tilting by the user. Such rotatable adjustment may be accomplished, for example, using 5 a modified ball joint allowing rotation only in the planes of interest.

By bending at the waist and tilting the head forward so that marker 55 indicates the desired alignment over ball 150, the base of mirrored surface 50 will be 10 positioned substantially perpendicular to the target line and the target and ball will appear generally in the center of mirrored surface 50 when the golfer's eyes are in proper alignment with the target.

The view seen by a golfer using device 10 is best 15 illustrated in Figures 4A through 4C. Figure 4A illustrates the view of the golfer when the eye nearest the target is open and the other eye closed. Putter 200 and ball 150 would not be visible, but are illustrated for reference in broken lines. Figure 4B illustrates the unobstructed view 20 of putter 200 and ball 150 as seen by the golfer with the eye farthest from the hole open and the other eye closed. Figure 4C illustrates the "compound" view of the golfer when both eyes are opened. Target 100 appears in mirrored surface 50 which is not shown in Figure 4C.

While maintaining the head steady, the golfer 25 initiates the backswing and then brings the putter head through the ball on the target line indicated by mirrored surface 50 (and alignment line A). The present device thus provides a teaching aid to assist a golfer in achieving 30 proper alignment during putting. Moreover, the present

device also assists the golfer in maintaining the golfer's head steady during putting as any movement of the golfer's head is readily, visibly apparent from the motion of alignment member 30 with relative to the stationary ball.

5 Another embodiment of an alignment device 200 of the present invention is illustrated in Figure 5. In this embodiment, alignment device comprises a support member including a belt member 220 upon which a light source is attached. As described above, the light source generates a
10 visible alignment line of light A on the ground in front of the golfer that is generally parallel to an alignment of the golfer's that portion of the golfer's body upon which support member is worn. As also described above, the light source preferably comprises a laser 230 and a generally cylindrical lens 240 positioned transversely to the light beam emanating from laser 230. The light source can be
15 adjustable relative to belt member 220 to enable the user to adjust the position of line A away from the body of the user. Device 200 of Figure 5 can be worn, for example, on the chest or sternum region to study the alignment of the shoulders and/or on the waist or hip region to study the alignment of the hips. The alignment of device 200 can be
20 checked or calibrate simply by standing against a wall and ensuring that line A is generally parallel to the wall. A
25 switch for turning laser 230 on and off can be located on the laser or remotely.

Although the present invention has been described in detail in connection with the above examples, it is to be understood that such detail is solely for that purpose and
30 that variations can be made by those skilled in the art

without departing from the spirit of the invention except as it may be limited by the following claims.

WHAT IS CLAIMED IS:

1. A device for assisting a person in achieving proper alignment of a portion of the person's body, comprising:

a support member to be worn by the person upon the portion of the person's body;

a light source attached to the support member, the light source generating a visible alignment beam of light on the ground in front of the person that is generally parallel to an alignment of the portion of the person's body.

2. The device of Claim 1 wherein the light source includes a laser and a generally cylindrical lens positioned transversely to a light beam emanating from the laser, the lens creating a planar beam of light which forms the visible alignment beam on the ground.

3. The device of Claim 1 wherein the support member comprises eye glass frames and the visible alignment beam is generally parallel to the alignment of the person's eyes.

4. The device of Claim 1 wherein the support member comprises a belt to be worn around the portion of the person's body.

SEARCHED SERIALIZED INDEXED

5. A device for assisting a golfer in achieving proper alignment for a golf stroke in which a ball is struck to move towards a target, comprising:

a support member to be worn by the golfer;

a light source attached to the support member, the light source generating a visible alignment beam of light on the ground in front of the golfer that is generally parallel to an alignment of the golfer's body when the support member is worn by the golfer;

an alignment member attached to the support member, the alignment member comprising a planar mirrored surface thereon, the position of the alignment member being adjustable to enable positioning of the mirrored surface such that a reflection of the target may be viewed by the eye of the golfer closest to the target.

6. The device of claim 5 wherein the support member comprises eye glass frames.

7. The device of claim 6 wherein the alignment member is hingedly attached to the frame member to enable positioning of the mirrored surface such that a reflection

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of the ball and the target may be viewed simultaneously by the eye of the golfer closest to the target.

8. A method of determining alignment of a portion of a person's body, the method comprising the steps of:

attaching a support member to the portion of the person's body, the support member having attached thereto a light source, the light source adapted to generate a visible alignment beam of light on the ground that is generally parallel to the alignment of the portion of the person's body;

generating the visible alignment beam of light on the ground.

9. The method of Claim 8 wherein the light source comprises a laser and a generally cylindrical lens positioned transversely to a light beam emanating from the laser, the lens creating a planar beam of light which forms the visible alignment beam of light on the ground.

10. The method of Claim 8 further comprising the step of using the alignment beam of light to align for a golf stroke.

11. The method of Claim 8 wherein the support member comprises eye glass frames and the visible alignment beam is generally parallel to the alignment of the person's eyes

PCT/US2007/032008

12. The method of Claim 8 wherein the support member comprises a belt to be worn around the portion of the person's body.

ABSTRACT

The present invention provides a device and method for assisting a person in achieving proper alignment. The device and method are particularly useful for achieving proper alignment for a golf stroke in which a golf ball is struck to move towards a target. In one embodiment, the device comprises a support member to be worn by the person. A light source is attached to the support member. The light source is adapted to generate a visible alignment beam of light on the ground in front of the person that is generally parallel to an alignment of the portion of the person's body upon which the support member is worn.

PATENT DOCUMENTS
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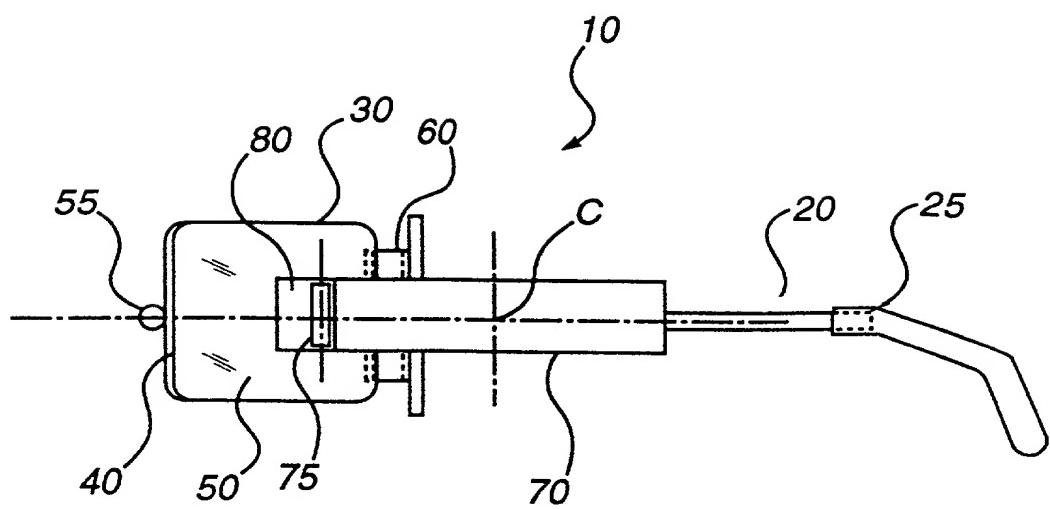


Figure 1

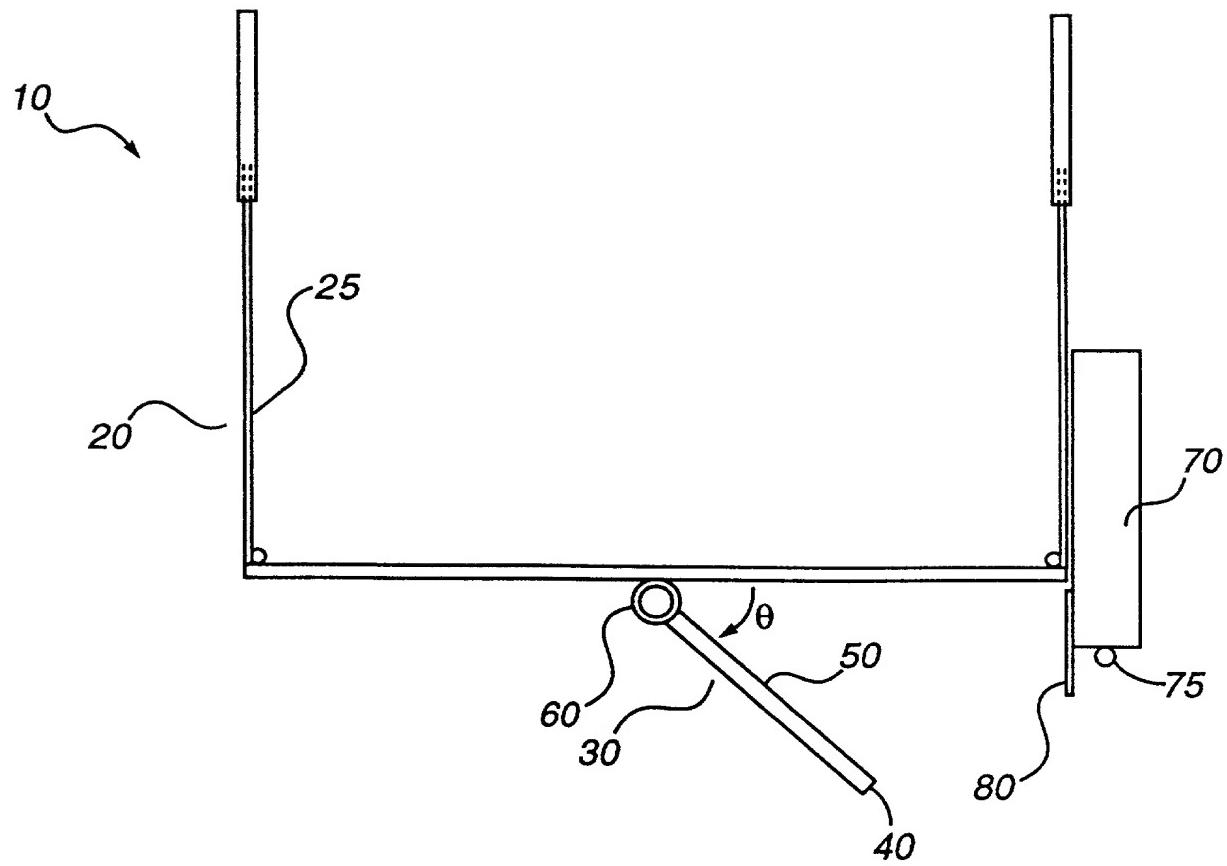


Figure 2

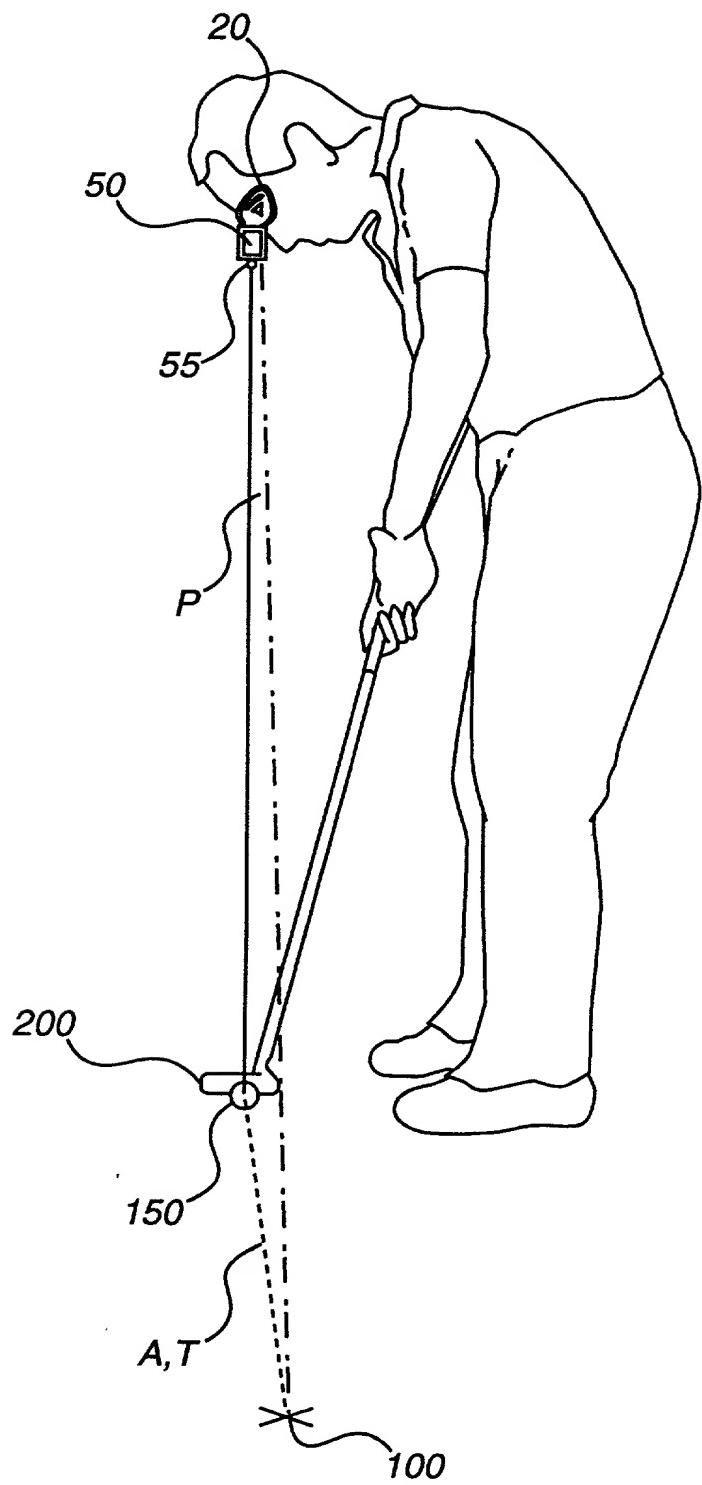


Figure 3

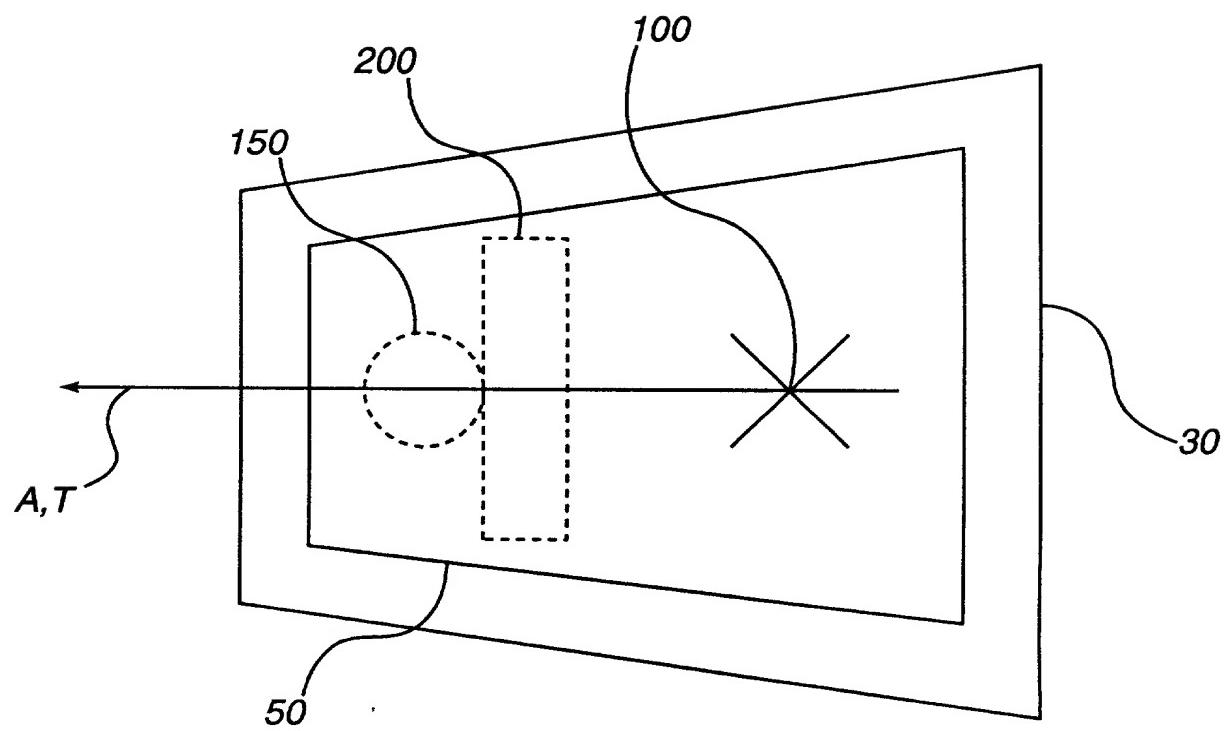


Figure 4A

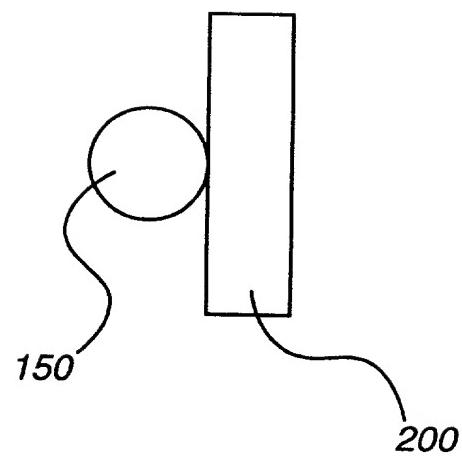


Figure 4B

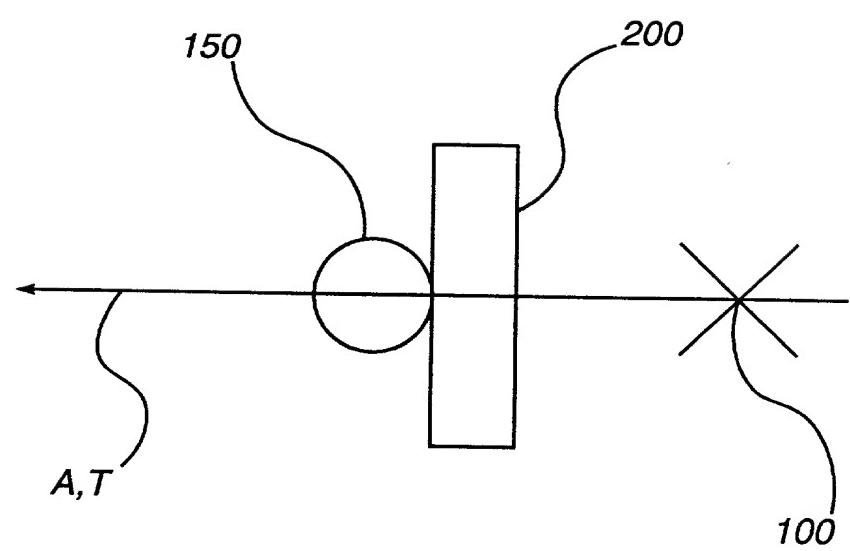


Figure 4C

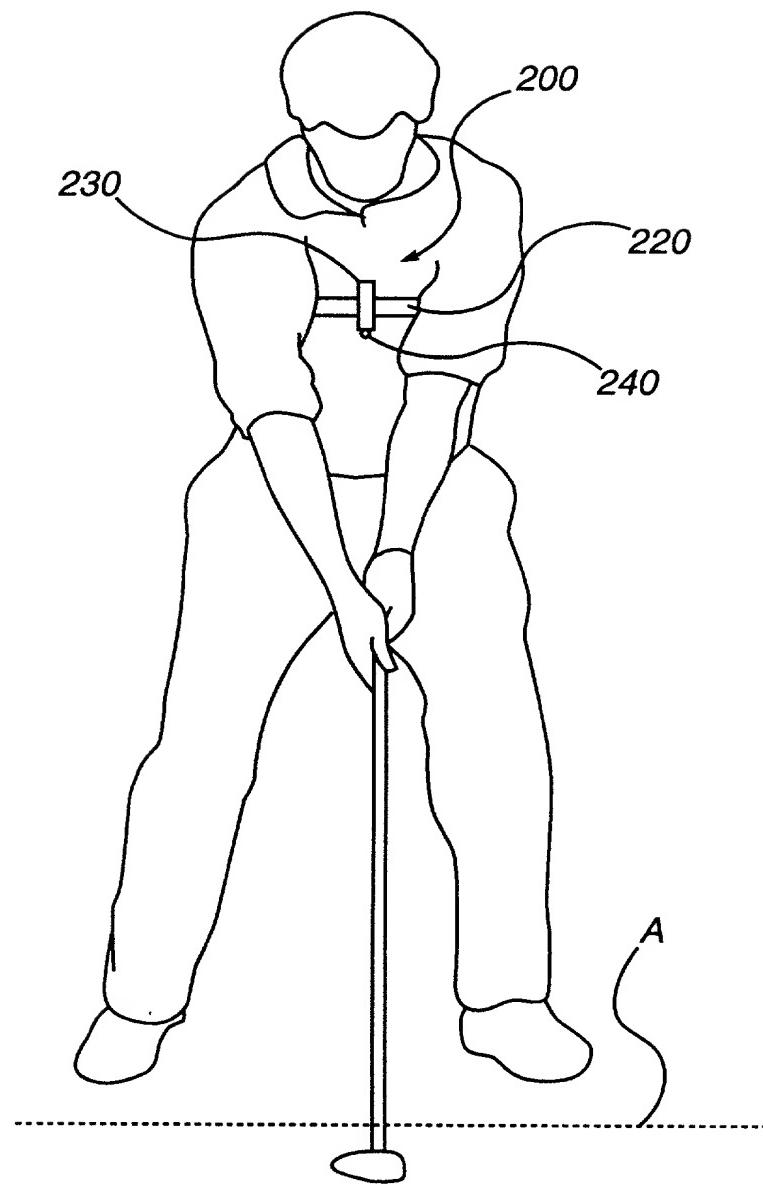


Figure 5

COMBINED DECLARATION AND POWER OF ATTORNEY(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL,
CONTINUATION OR C-I-P)

As a below named inventor, I hereby declare that:

TYPE OF DECLARATION

This declaration is of the following type:

(check one applicable item below)

- [] original.
[] design.
[] supplemental.

NOTE: IF THE DECLARATION IS FOR AN INTERNATIONAL APPLICATION BEING FILED AS
A DIVISIONAL, CONTINUATION OR CONTINUATION-IN-PART APPLICATION, DO NOT
CHECK NEXT ITEM; CHECK APPROPRIATE ONE OF LAST THREE ITEMS.

- [] national stage of PCT.

NOTE: IF ONE OF THE FOLLOWING 3 ITEMS APPLY, THEN COMPLETE AND ALSO ATTACH
ADDED PAGES FOR DIVISIONAL, CONTINUATION OR C-I-P.

- [] divisional.
[] continuation.
[] continuation-in-part (C-I-P).

INVENTORSHIP IDENTIFICATION

WARNING: IF THE INVENTORS ARE EACH NOT THE INVENTORS OF ALL THE CLAIMS, AN
EXPLANATION OF THE FACTS, INCLUDING THE OWNERSHIP OF ALL THE CLAIMS
AT THE TIME THE LAST CLAIMED INVENTION WAS MADE, SHOULD BE
SUBMITTED.

My residence, post office address and citizenship are as stated below, next to
my name. I believe that I am the original, first and sole inventor (IF ONLY
ONE NAME IS LISTED BELOW) or an original, first and joint inventor (IF PLURAL
NAMES ARE LISTED BELOW) of the subject matter that is claimed, and for which a
patent is sought on the invention entitled:

TITLE OF INVENTION

ALIGNMENT DEVICE AND METHOD FOR ALIGNING

SPECIFICATION IDENTIFICATION

the specification of which:

(complete (a), (b) or (c))

(a) [x] is attached hereto.

(b) [] was filed on _____, as [] Serial No. 0 /
or [] Express Mail No., as Serial No. not yet known _____
and was amended on _____ (IF APPLICABLE).

NOTE: AMENDMENTS FILED AFTER THE ORIGINAL PAPERS ARE DEPOSITED WITH THE PTO
THAT CONTAIN NEW MATTER ARE NOT ACCORDED A FILING DATE BY BEING
REFERRED TO IN THE DECLARATION. ACCORDINGLY, THE AMENDMENTS INVOLVED
ARE THOSE FILED WITH THE APPLICATION PAPERS OR, IN THE CASE OF A
SUPPLEMENTAL DECLARATION, ARE THOSE AMENDMENTS CLAIMING MATTER NOT
ENCOMPASSED IN THE ORIGINAL STATEMENT OF INVENTION OR CLAIMS. SEE 37
CFR 1.67.

(c) [] was described and claimed in PCT International Application No.
_____, filed on _____ and as
amended under PCT Article 19 on _____ (IF ANY).

ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the
above-identified specification, including the claims, as amended by any
amendment referred to above.

I acknowledge the duty to disclose information, which is material to
patentability as defined in 37, Code of Federal Regulations, S 1.56,

(also check the following items, if desired)

- [x] and which is material to the examination of this application,
namely, information where there is a substantial likelihood that a
reasonable Examiner would consider it important in deciding whether
to allow the application to issue as a patent, and
- [x] in compliance with this duty, there is attached an information
disclosure statement, in accordance with 37 CFR 1.98.

PRIORITY CLAIM (35 U.S.C. S 119(a)-(d))

I hereby claim foreign priority benefits under Title 35, United States Code,
S 119(a)-(d) of any foreign application(s) for patent or inventor's
certificate or of any PCT international application(s) designating at least
one country other than the United States of America listed below and have also
identified below any foreign application(s) for patent or inventor's
certificate or any PCT international application(s) designating at least one
country other than the United States of America filed by me on the same
subject matter having a filing date before that of the application(s) of which
priority is claimed.

(complete (d) or (e))

(d) [x] no such applications have been filed.

(e) [] such applications have been filed as follows.

NOTE: WHERE ITEM (C) IS ENTERED ABOVE AND THE INTERNATIONAL APPLICATION
WHICH DESIGNATED THE U.S. ITSELF CLAIMED PRIORITY CHECK ITEM (E),
ENTER THE DETAILS BELOW AND MAKE THE PRIORITY CLAIM.

PRIOR FOREIGN/PCT APPLICATION(S) FILED WITHIN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. S 119(a)-(d)

| COUNTRY (OR INDICATE IF PCT) | APPLICATION NUMBER | DATE OF FILING (day, month, year) | PRIORITY CLAIMED UNDER 37 USC 119 |
|------------------------------------|--------------------|--------------------------------------|--------------------------------------|
| | | [] YES | NO [] |
| | | [] YES | NO [] |
| | | [] YES | NO [] |
| | | [] YES | NO [] |
| | | [] YES | NO [] |

CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)
(34 U.S.C. S 119(e))

I hereby claim the benefit under Title 35, United States Code, S 119(e) of any United States provisional application(s) listed below:

| PROVISIONAL APPLICATION NUMBER | FILING DATE |
|--------------------------------|-------------|
| _____ / _____ | _____ |
| _____ / _____ | _____ |
| _____ / _____ | _____ |

CLAIM FOR BENEFIT OF EARLIER US/PCT APPLICATION(S)
UNDER 35 U.S.C. 120

[] The claim for the benefit of any such applications are set forth in the attached ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR DIVISIONAL, CONTINUATION OR CONTINUATION-IN PART (C-I-P) APPLICATION.

ALL FOREIGN APPLICATION(S), IF ANY, FILED MORE THAN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION

NOTE: IF THE APPLICATION FILED MORE THAN 12 MONTHS FROM THE FILING DATE OF THIS APPLICATION IS A PCT FILING FORMING THE BASIS FOR THIS APPLICATION ENTERING THE UNITED STATES AS (1) THE NATIONAL STAGE, OR (2) A CONTINUATION, DIVISIONAL, OR CONTINUATION-IN-PART, THEN ALSO COMPLETE ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR DIVISIONAL, CONTINUATION OR C-I-P APPLICATION FOR BENEFIT OF THE PRIOR U.S. OR PCT APPLICATION(S) UNDER 35 U.S.C. S 120.

POWER OF ATTORNEY

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Henry E. Bartony, Jr., Reg. No. 34,772

(check the following item, if applicable)

- [] Attached, as part of this declaration and power of attorney, is the authorization of the above-named attorney(s) to accept and follow instructions from my representative(s).

SEND CORRESPONDENCE TO

Henry E. Bartony, Jr.
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The Law & Finance Building
429 Fourth Avenue
Pittsburgh, PA 15219

DIRECT TELEPHONE CALLS TO:

Henry E. Bartony, Jr.
Tel (412) 338-8632
Fax (412) 338-6611

DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE (S)

NOTE: Carefully indicate the family (or last) name, as it should appear on the filing receipt and all other documents.

Full name of sole or first inventor

Full name of sole or first inventor

Christopher N.

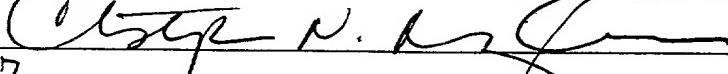
(GIVEN NAME)

(MIDDLE INITIAL OR NAME)

Macroglou

FAMILY (OR LAST NAME)

Inventor's signature



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9-23-97

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(MIDDLE INITIAL OR NAME)

FAMILY (OR LAST NAME)

Inventor's signature

Date

Country of Citizenship

Residence

Post Office Address

Full name of third joint inventor, if any

(GIVEN NAME)

(MIDDLE INITIAL OR NAME)

FAMILY (OR LAST NAME)

Inventor's signature

Date

Country of Citizenship

Residence

Post Office Address

(check proper box(es) for any of the following added page(s)
that form a part of this declaration)

- [] Signature for fourth and subsequent joint inventors. NUMBER OF PAGES ADDED _____.

* * *

- [] Signature by administrator(trix), executor(trix) or legal representative for deceased or incapacitated inventor. NUMBER OF PAGES ADDED _____.

* * *

- [] Signature for inventor who refuses to sign or cannot be reached by person authorized under 37 CFR 1.47. NUMBER OF PAGES ADDED _____.

* * *

- [] Added page for signature by one joint inventor on behalf of deceased inventor(s) where legal representative cannot be appointed in time.
(37 CFR 1.47)

* * *

- [] Added pages to combined declaration and power of attorney for divisional, continuation, or continuation-in-part (C-I-P) application.

[] Number of pages added _____

* * *

- [] Authorization of attorney(s) to accept and follow instructions from representative.

* * *

(if no further pages form a part of this Declaration,
then end this Declaration with this page and check the following item)

- [x] This declaration ends with this page.